

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.                             | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-----------------|----------------------|---------------------|------------------|
| 10/649,885                                  | 08/26/2003      | Thomas Stack         | QTI-10502/01        | 7827             |
| O To along la acc                           | 7590 05/02/200° | ,                    | EXAM                | INER             |
| Q Technology, Inc. Suite H                  |                 |                      | PHILOGENE, HAISSA   |                  |
| 100 Engelwood Drive<br>Lake Orion, MI 48359 |                 |                      | ART UNIT            | PAPER NUMBER     |
|   |                 |                      | 2821                |                  |
|   |                 |                      |                     |                  |
|   | •               |                      | MAIL DATE           | DELIVERY MODE    |
|   |                 |                      | 05/02/2007          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.  | Applicant(s)  |  |  |  |
|--|--|---------------|--|--|--|
| •  | 10/649,885   | STACK, THOMAS |  |  |  |
| Office Action Summary  | Examiner   | Art Unit      |  |  |  |
|  | Haissa Philogene   | 2821          |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |  |               |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |               |  |  |  |
| Status   |  |               |  |  |  |
| <ol> <li>Responsive to communication(s) filed on 29 January 2007.</li> <li>This action is FINAL. 2b) This action is non-final.</li> <li>Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.</li> </ol>   |  |               |  |  |  |
| Disposition of Claims  |  |               |  |  |  |
| <ul> <li>4)  Claim(s) 1,5,10 and 25-32 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdrawn from consideration.</li> <li>5)  Claim(s) 1 and 5 is/are allowed.</li> <li>6)  Claim(s) 10 and 25-32 is/are rejected.</li> <li>7)  Claim(s) is/are objected to.</li> <li>8)  Claim(s) are subject to restriction and/or election requirement.</li> </ul>   |  |               |  |  |  |
| Application Papers   |  |               |  |  |  |
| 9) ☐ The specification is objected to by the Examiner.  10) ☐ The drawing(s) filed on 29 January 2007 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |  |               |  |  |  |
| Priority under 35 U.S.C. § 119   |  |               |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |  |               |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date   | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | te            |  |  |  |

### **DETAILED ACTION**

# Response to Amendment

Applicant's arguments filed 01/11/07 have been fully considered but they are not persuasive. To overcome the 112 first paragraph rejection, Applicant, in his remarks, addressed the claimed statement "the sensed energy's frequency varies with a rate in excess of a predetermined threshold" (claim 10) by labeling Figure 4 and presenting the following details "As shown, capacitor 402 is disposed....changes rapidly enough." and "the predetermined threshold is a result of the time constant between the capacitor and the inherent finite input resistance of the Schmitt trigger 415" (see REMARKS, page 6, lines 12-17 and 18-20), the examiner's position is that nowhere in the Specification such disclosure is found implicitly or explicitly.

With regard to claim 25, Applicant has directed his remarks to page 5, lines 22-25 in the Specification and added in page 7, lines 4-8, an explanation for the inherent first predetermined threshold. The examiner's position is that except for the first predetermined threshold, the above information does not translate in any way to what is being claimed in claim 25.

Withh regard to claim 26, Applicant has directed his remarks to page 6, lines 2-11 in the Specification and added that the second predetermined threshold is due to the internal switch-off voltage of the Schmitt trigger comprised by Q4 and Q5. The examiner's position is that this is nowhere to be found in the Specification. In addition, the claimed limitation "the voltage present at the node is below a second predetermined threshold"

Art Unit: 2821

is not found implicitly or explicitly in that part of the Specification, even when it is pulled down to cause the trigger to activate.

With regard to claim 30, Applicant argued that the recited limitation "...too little or too much energy above a [the] fundamental frequency, or insufficient total energy." combines functionality in claims 25 and 26, representing two different modes of operation that are possible from the same circuit given two different abnormal load scenarios. The examiner's position is that firstly such claimed limitation is nowhere found in the specification, as well as the added details.

## Specification

The disclosure is objected to because of the following informalities: Add the labels shown in Figs. 4-7 in the Specification. In page 3, line 27, change "214" to –222-. Appropriate correction is required.

## Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10 and 25-32 are rejected under 35 U.S.C. 112, first paragraph, for reasons made of record.

#### Allowable Subject Matter

Claims 1 and 5 are allowed.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Griffin et al., Patent No. 5,636,111; Stack, Patent No. 6,781,326.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

# Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 8:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571)272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

hp

Haissa Philogene Primary Exeminer Jau / Jul. 1881 (2)